

CLAIM AMENDMENTS

1. (Previously Amended) A high frequency power amplifier, comprising:
a transistor for amplifying signals and having an input side; and
an input-side impedance matching circuit connected between the input side of said transistor and a signal input terminal of the amplifier, wherein said input-side impedance matching circuit provides an impedance of a substantially open circuit load with respect to even number higher harmonics of a fundamental wave of a high frequency signal and comprises a third harmonic reflecting circuit, a second harmonic processing circuit, and a fundamental wave matching circuit, disposed sequentially from the signal input terminal.

2. (Previously Amended) The high frequency power amplifier according to claim 1, wherein a phase angle of reflection of a second harmonic is 0 to 90 degrees, and reflection is 0.6 to 1.0, with respect to a reflection coefficient when said input-side impedance matching circuit is viewed from the input side of said transistor.

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) A high frequency power amplifier, comprising:
a transistor for amplifying signals and having an input side; and
an input-side impedance matching circuit connected between the input side of said transistor and a signal input terminal of the amplifier, wherein
said input-side impedance matching circuit provides an impedance of a substantially short-circuit load with respect to odd number harmonics of a fundamental wave of a high frequency signal; and
a phase angle of reflection of a third harmonic is 110 to 270 degrees, and reflection is 0.6 to 1.0, with respect to a reflection coefficient when said input-side impedance matching circuit is viewed from the input side of said transistor.

6 and 7 (Cancelled)

8. (Previously Amended) The high frequency power amplifier according to claim 5, wherein said input-side impedance matching circuit comprises a third harmonic reflecting

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circuit, a second harmonic processing circuit, and a fundamental wave matching circuit,
disposed sequentially from the signal input terminal.

9 (Cancelled)